

**Notice of Allowability**

Application No.

10/761,767

Examiner

TOAN D. NGUYEN

Applicant(s)

ORMOND, JOHN

Art Unit

2416

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/20/09.
2. ☒ The allowed claim(s) is/are 1-11, 13-23, 25-33, 35-43 are renumbered 1-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 8/20/09.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Richard C. Auchterlonie on 08/20/09.

2. The application has been amended as follows:

**IN THE CLAIMS:**

Claim 10, line 1, the limitation "the pool of" has been replaced by --- a pool of ---.

Claim 15, line 2, the limitation "to insure that each I/O request data packet is transmitted in a frame no later than a certain time interval after said each I/O request data packet is produced by one of the on-line transaction processing applications." has been replaced by --- to insure that said each I/O request data packet is transmitted in said frame no later than said certain time interval after said each I/O request data packet is produced by said one of the on-line transaction processing applications. ---.

Claim 16, line 4, the limitation "the network block storage" has been replaced by - -- the network block storage interface ---.

Claim 16, line 5, the limitation "the network block storage." has been replaced by --- the network block storage interface. ---.

Claim 20, line 2, the limitation "intercepts I/O request data packets" has been replaced by --- intercepts the I/O request data packets ---.

Claim 20, line 3, the limitation "a network block storage interface." has been replaced by --- the network block storage interface. ---.

Claim 27, line 2, the limitation "to insure that each I/O request data packet is transmitted in a frame no later than a certain time interval after said each I/O request data packet is produced by one of the on-line transaction processing applications." has been replaced by --- to insure that said each I/O request data packet is transmitted in said frame no later than said certain time interval after said each I/O request data packet is produced by said one of the on-line transaction processing applications. ---.

Claim 28, line 4, the limitation "the network block storage." has been replaced by --- the network block storage interface. ---.

Claim 28, line 5, the limitation "the network block storage." has been replaced by --- the network block storage interface. ---.

Claim 31, line 2, the limitation "intercepts I/O request data packets" has been replaced by --- intercepts the I/O request data packets ---.

Claim 31, line 3, the limitation "a network block storage interface." has been replaced by --- the network block storage interface. ---.

Claim 35, line 4, the limitation "the I/O request data packets" has been replaced by --- I/O request data packets ---.

Claim 37, line 2, the limitation "to insure that each I/O request data packet is transmitted in a frame no later than a certain time interval after said each I/O request

data packet is produced by one of the on-line transaction processing applications.” has been replaced by --- to insure that said each I/O request data packet is transmitted in said frame no later than said certain time interval after said each I/O request data packet is produced by said one of the on-line transaction processing applications. ---.

Claim 38, line 4, the limitation “the network block storage.” has been replaced by --- the network block storage interface. ---.

Claim 38, line 5, the limitation “the network block storage.” has been replaced by --- the network block storage interface. ---.

Claim 41, line 2, the limitation “intercepts I/O request data packets” has been replaced by --- intercepts the I/O request data packets ---.

***Allowable Subject Matter***

3. The following is an examiner’s statement of reasons for allowance:

Regarding claim 1, the prior art fails to teach a combination of the steps of:

(b) upon delaying packet transmission for the certain time interval, transmitting each frame in a second set of the frames which are not filled with at least some of the data packets so that said each frame in the second set of the frames cannot contain an additional data packet in order to ensure that said each data packet is transmitted in at least one of the frames no later than the certain time interval after the respective time of said each data packet in the time sequence, in the specific combination as recited in the claim.

Regarding claims 13 and 25, the prior art fails to teach a combination of the steps of:

the network transmission frames include a second set of frames in which each flame in the second set of frames is transmitted upon delaying packet transmission for the certain time interval, and said each flame in the second set of frames is not filled with data from one or more of the I/O request data packets so that said each flame in the second set of frames cannot contain an additional I/O request data packet, in the specific combination as recited in the claim.

Regarding claim 35, the prior art fails to teach a combination of the steps of:

wherein the host processor is programmed to transmit each network transmission frame upon the earlier of either filling said each network transmission frame with data from one or more of the I/O request data packets so that said each network transmission frame cannot contain an additional I/O request data packet, or delaying packet transmission for the certain time interval, so that the network transmission frames include a first set of frames in which each frame in the first set of frames is transmitted upon filling said each frame in the first set of frames with data from one or more of the I/O request data packets so that said each frame in the first set of frames cannot contain an additional I/O request data packet, and a second set of frames in which each frame in the second set of frames is transmitted upon delaying packet transmission for the certain time interval, and said each frame in the second set of frames is not filled with data from one or more of the I/O request data packets so that said each frame in the second set of frames cannot contain an additional I/O request data packet, in the specific combination as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D. N./  
Examiner, Art Unit 2416

/William Trost/  
Supervisory Patent Examiner, Art Unit 2416